Open Access Publishing: A Study on Impact and Acceptance among Indian Research Community

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1. Introduction

Open access publishing has been defined as free availability of the scholarly literature usually in an electronic form of scholarly literature via the Internet to people. Publishing in open access route itself and scholarly literature to depositing in open access archives repositories. The open access has emerged as an alternative way to the publisher-driven commercial model of scholarly publishing that provides free access to scientific information to its users. The open access publishing model offers access to full text of journals free of charge to a user through well organized and professionally managed web interfaces. The proposal of open access originated from grounds that it would strengthen the exchange of ideas and information among the scientific community, it would be unaffected and unencumbered from the limitations of subscription costs, licensing arrangements and copyright inherent to the traditional model of commercial journal publishing and help researchers, postgraduate students, librarians and other stakeholders to incorporate open Access approaches into their existing research methodologies. In today's world, open access journals and institutional repositories are two major routes to promote open access and convince the scholarly world for open access publishing.

The creation, dissemination and application of newly discovered scientific knowledge is fundamental to the development of mankind and for a healthy national and the world economy. This process is facilitated by institutions of higher learning worldwide. From the lab - to classroom - to industry - to public, the advancement of knowledge is a continuous process supported by invention, innovation, research and development by the higher educational system. There are two ways the knowledge is created and disseminated: formal and informal channels within the scholarly

communication system. Formal scholarly communication (scholarly publishing) is the process, through which newly discovered knowledge is refined, certified, distributed and preserved for the use of researchers, faculty, students and the general public. This usually is in the form of published journal articles, conference proceedings, symposia, books, through which the knowledge gets disseminated. Informal channels include visiting conferences, using discussion groups, and professional networking to find out what is happening in a particular discipline or area of interest to the individual or a group. The members involved in the scholarly communication process are researchers, publishers, libraries, and users.

Improving access to publications, across all scholarly disciplines, represents a central part of the move to open science, alongside measures to improve access to research data. Open science in turn has the potential to accelerate the advancement of knowledge, enable growth and innovation at all levels of society, and contribute to growth and competitiveness.

The fundamental technologies required to deliver this vision have been in place since the dawn of the internet age. Their impact has been felt across countless industries, from news media to music, retail to transportation. Yet while scientific publications made the transition from print to predominantly digital delivery methods in the early part of this century, the subscription-based business model on which they really have proven remarkably resilient. The move to open access has already resulted in a significant minority of content becoming publicly available, whilst creating opportunities for new players to enter the market. To date, though, it has not displaced the subscription-model as the dominant mode of scholarly communication, nor has it reversed a longstanding trend towards market concentration in the hands of a few commercial publishers. Even now, the majority of publications arising from public

investments in research are held behind a paywall, accessible only to those with subscriptions to the content.

2. Review of literature

The purpose of the literature review is to provide an account of studies so far carried out by various research outcomes such as thesis, articles, reports, the views expressed by researchers, professionals, scholars, in the field of competitive and sustainable open access publishing. It covers various aspects of publishing a market competition, sustainability, open access publishing, researchers thinking about open access publishing, institutional repositories, and institutional archives.

Scholarly communication has been defined as 'the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use (ACRL, 2006). (Borgman, 2000) describes scholarly communication as "the study of how scholars in any field of knowledge use and disseminate information through formal and informal channels. Web 2.0 technologies potentially supported to scholarly communication in collaboration with researchers among worldwide, (Ponte & Simon, 2011) The results of the survey show that there is a strong positive attitude towards Web 2.0 and open publishing approaches. However, the major challenge still resides in combining free dissemination of results with robust and reliable quality control mechanisms.

Johnson, et. all (2017) conducted research on Towards a Competitive and Sustainable OA Market in Europe. This study considers the economic factors contributing to the current state of the open-access publishing market, and evaluates the potential for European policymakers to enhance market competition and sustainability in parallel to increasing access, the study mainly focuses on open access to peer-reviewed research articles, which constitute the bulk of the market and the

primary mechanism through which research is disseminated across disciplinary communities and beyond.

Laakso et al., (2011) talks about Open Access (OA) is a model for publishing scholarly peer reviewed journals, made possible by the Internet. The full text of OA journals and articles can be freely read, as the publishing is funded through means other than subscriptions. Empirical research concerning the quantitative development of OA publishing has so far consisted of scattered individual studies providing brief snapshots, using varying methods and data sources. This study adopts a systematic method for studying the development of OA journals from their beginnings in the early 1990s until 2009.

STM publishing can rightly pride itself on its history of innovation, but the game is changing and future revenue growth will more innovation-led, and potentially disruptive innovation more common (Rob et al., 2018). In the digital world, user expectations are increasingly set by the leading consumer brands. Publishers will have to come to terms with a faster rate of change, more frequent development and release cycles, and more external innovation. With innovation a key success factor, recruitment of talent from outside the traditional STM publishing sector, partnering, and acquisition of technology start-ups will all become more common.

The World Bank supports the free online communication and exchange of knowledge as the most effective way of ensuring that the fruits of research, economic and sector work, and development practice are made widely available, read, and built upon (World Bank, 2012). It is therefore committed to open access, which, for authors, enables the widest possible dissemination of their findings and, for readers, increases their ability to discover pertinent information.

The move from traditional to open-access journals which charge no subscription fees, only submission fees is gaining support in academia (McCabe & Snyder, 2016). We analyse a two-sided-market model in which journals cannot commit to subscription fees when authors (who prefer low subscription fees because this boosts readership) make submission decisions. This leads to a hold-up problem, manifested as excessive subscription fees. Open access is a crude attempt to avoid hold up by eliminating subscription fees.

Harnad, (2013) talks about the Universal Open Access (OA) is fully within the reach of the global research community: Research institutions and funders need merely mandate (green) OA self-archiving of the final, refereed drafts of all journal articles immediately upon acceptance for publication. The money to pay for gold OA publishing will only become available if universal green OA eventually makes subscriptions unsustainable. Paying for gold OA pre-emptively today, without first having mandated green OA not only squanders scarce money, but it delays the attainment of universal OA.

Armbruster, (2011) says Open Access policy implementation is a tough job. Policy pioneers have faced considerable challenges in meeting their own aims and achieving recognized success. Professionals charged with implementing policy typically need several years to accomplish significant progress. Armstrong, (2010) discuss the impact of collection sales the bundling of several journals for sale by publishers to libraries on journals. The advent of electronic journal distribution implies that bundling is an efficient sales strategy and can act to extend the reach of a journal. Current arrangements are discussed and shown to lead to tensions between commercial publishers and non-profit journals. The article argues that non-profit journals should not necessarily abandon collection sales programs. Rather, non-profit

journals may benefit from withdrawing from commercial publishers which distribute their own for-profit journals, and joining together to be distributed by less commercial publishers who set relatively low prices for their collections. One of the effects of the Internet and internet publishing is that the dissemination of scientific publications has migrated to electronic formats in a very short time period. Björk, (2005) recalls that, things have changed a lot. In protest against the high subscription prices of journals, scientists have started Open Access (OA) journals and e-print repositories, which help spread scholarly information freely without barriers. Bjork also discusses the types of barriers, which can be classified as consisting of the legal framework, the IT infrastructure, business models in place, services, the academic reward system, marketing and so on.

University of Minho adopted the first university-wide Green Open Access Mandate in Europe in 2004, requiring all research output to be self-archived in the institution's repository Gargouri, Larivière, & Harnad, (2013). The mandate was upgraded in 2011 to designate the repository as the sole mechanism for submitting publications for individual and institutional research performance assessment. A 10-year analysis shows that deposit rates are increasing and deposit delays are decreasing. Once the rest of the world follows Minho's example, universal Green OA will not be far behind.

The way to test the impact advantage of Open Access (OA) is not to compare the citation impact factors of OA and non-OA journals but to compare the citation counts of individual OA and non-OA articles appearing in the same (non-OA) journals Harnad & Brody, (2004). Such ongoing comparisons are revealing dramatic citation advantages for OA. Haug, (2013) propose open-access model in which authors pay to have their work published offers an alternative way of financing

quality control in scholarly publishing. But it also opens up opportunities for unscrupulous online "vanity presses" to exploit authors for profit. Campbell, Willinsky, & Anderson, (2010) examine the current state of scholarly publishing and develop consensus recommendations for expanding public access to the journal articles arising from research funded by agencies of the United States government.

3. Statement of the problem

After an initial review of literature, the present research problem titled as **"OPEN ACCESS PUBLISHING: A STUDY ON IMPACT AND ACCEPTANCE AMONG INDIAN RESEARCH COMMUNITY"** has been undertaken for the research purpose.

4. Need for the study

India is a house to plenty of higher educational institutions and research organisations imparting higher education to the students. The country is spending thousands of crores of rupees for research purpose annually using the public tax. The tax payer funded research output should be reached to the public in order to get the maximum benefits of it. This will be possible only if the research output can be accessed by the people easily and free of cost. One such route for this is publishing the taxpayers funded research output in Open Access platforms in the form of scholarly literature. Many of the studies that we reviewed show that researchers do not prefer to publish in open access platforms. The reasons are plenty and varied in nature. Since the research fund is raised out of the tax paid by the citizens of the country, the people have all the rights to get access to the research output for free. At this point, it is felt to carry-out a study to know the present status of the open access publishing system in the country as well as open access acceptance by the scientific author community and its impact on scholarly literature. There are several studies

already conducted in the same field, but no study has suggested the benefits in the form of impact the researchers avail from open access publishing. The study also aims at bringing out a competitive yet sustainable model for Open Access publishing in the country such as India.

5. Objectives of the study

1. To explore the current status of the OA publishing in India.
2. To examine the level of acceptance of OA publishing by research community.
3. To know the attitudes of researchers towards publishing their research through OA platforms.
4. To find out the methods used by the research community for self-archiving of their scholarly literature.
5. To assess the preference of scholarly community for depositing their scholarly literature on to the institutional repositories.
6. To measure the impacts of OA publishing on research community.

6. Hypothesis of the study

1. There is a significant difference in the Open access and commercial publishing models.
2. There is a significant difference in the level of acceptance in OA and Commercial publishing.
3. There is no clear understanding in the policies of the OA and Commercial publishing.
4. There is no clear understanding of scholarly literature's self-archiving methods.
5. There is no clear understanding of institutional repository policies, mandates, importance and advantages.

6. There is a significant difference in the impact of OA and Commercial publishing.

7. Scope and limitations of the study

The study is confined to the Indian research community comprises of the authors from science faculty of top 100 Indian universities as ranked by Indian NIRF. The study assess include the authors acceptance of OA publishing philosophy, preference in publishing their research output in OA channels. This study includes finding the impact of OA scholarly literature to assess the research productivity only. The result of the study may lead to the development of a competitive and yet sustainable OA publishing model.

8. Methodology

To collect the data, different methods will be employed. The study will identify the open access research and authors in India by developing a checklist to collect the data using all the open access and commercial hybrid OA publications and publishing sources. Secondary data available on websites, journals, government reports and other secondary sources will also be used as it can contribute much to the study purpose. Besides, a structured survey questionnaire will be distributed among the prolific Indian science researchers. The collected data will be analysed with the help of Statistical software packages and will be presented in tables and graphs wherever necessary. The entire structure of the thesis will be in accordance with the APA style manual including references.

9. Organisation of chapters

The present research study has been presented in the following five chapters

Chapter- I: Introduction

The first chapter introduces the topic of the research. It provides the need for the study, definition of key concepts, statement of the research problem, objectives and hypotheses of the study. It also provides a detailed account of the scope and limitations and Methodology employed for the study and also presents a brief overview of remaining chapters.

Chapter- II: Review of literature

The second chapter provides a detailed review of the literature on the research topic of study and its related areas. The review will be presented in number of sub categories according to their sequence of importance according to the requirements of the study.

Chapter- III: Methodology

The third chapter discusses the methodology to be employed, qualitative aspects of the study, quantitative data collection techniques, data collection tools and techniques, study population and sampling, validity of the questionnaire and using statistical tests.

Chapter - IV: Results and discussion

The fourth chapter provides the results of the data collection and subsequent analysis of data gathered. The data collected has been analysed and presented in over tables and pictures. The data collected has been analysed to examine with the help of statistics whether the results are supporting the objectives of the study and hypotheses.

Chapter - VI: Findings, Recommendations, Further research and Conclusion

The fifth chapter provides the summary of the findings of the investigation, verification of the hypotheses, recommendations, further scope for research and conclusion with practical suggestions for improvement.

10. Conclusion

Open access publishing is an emerging trend in the scholarly literature publishing. Today there are a number of open access and closed access journals available in the world for publishing scholarly literature. Open access concept introduced past 30 years, but the level of awareness is still a debatable issue. At present there are 13,910 open access journals available in the Directory of Open Access Journal (DOAJ) alone. There are 563 journals are available in the Registry of Indian Open Access Journals. Open access journals are one of the most prolific scholarly tools within the scholarly communication world today. It can be seen broadly, that the level of awareness and acceptance among the science authors to publish their research results in open access journals. This study is aimed at to see how this author community's acceptance towards the OA and OA publishing to arrive at an acceptable level of impact for their research literature. Way to go..

References

ACRL. (2006, September 1). Principles and Strategies for the Reform of Scholarly Communication1 [Text]. Retrieved October 14, 2019, from *Association of College & Research Libraries* (ACRL) website: http://www.ala.org/acrl/publications/whitepapers/principlesstrategies

Anup Kumar Das, Mishra, S., & Satija, M. P. (2015). *Scholarly communications*. Retrieved from http://unesdoc.unesco.org/images/0023/002319/231938e.pdf

Armbruster, C. (2011). *Open Access Policy Implementation: First Results Compared* (SSRN Scholarly Paper No. ID 1927775). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=1927775

Armstrong, M. (2010). *Collection Sales: Good or Bad for Journals?* (SSRN Scholarly Paper No. ID 1542280). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=1542280

Bank, T. W. (2012). *World Bank Open Access Policy for Formal Publications* (No. 67830; pp. 1–5). Retrieved from The World Bank website: http://documents.worldbank.org/curated/en/992881468337274796/World-Bank-Open-Access-Policy-for-Formal-Publications

Björk, P. B.-C. (2005). Open access to scientific publications—An analysis of the barriers to change [Text]. Retrieved July 30, 2019, from http://informationr.net/ir/9-2/paper170.html

Borgman, C. L. (2000). Digital libraries and the continuum of scholarly communication. *Journal of Documentation*. https://doi.org/10.1108/EUM0000000007121

Campbell, B., Willinsky, J., & Anderson, R. (2010). Report and Recommendations from the Scholarly Publishing Roundtable. *Learned Publishing*, *23*(3), 264–266. https://doi.org/10.1087/20100310

Elsevier and Ipsos MORI. (2019). *Research Futures* (p. 139).

Gargouri, Y., Larivière, V., & Harnad, S. (2013). Ten-year Analysis of University of Minho Green OA Self-Archiving Mandate. In E. Rodrigues, A. Swan, & A. A. Baptista (Eds.), *Ten-year Anniversary of University of Minho RepositóriUM*. Retrieved from https://eprints.soton.ac.uk/358882/

Giancarlo, F. F., & Estelle, D. (2014). *Open Access Publishing A Literature Review*. University of Nottingham, UK.

Harnad, S. (2013). The Postgutenberg Open Access Journal (revised). In B. Cope & A. Phillips (Eds.), *The Future of the Academic Journal (2nd edition)*. Retrieved from https://eprints.soton.ac.uk/353991/

Harnad, S., & Brody, T. (2004). Comparing the Impact of Open Access (OA) vs. Non-OA Articles in the Same Journals. *D-Lib Magazine*, *10*(6), 5.

Haug, C. (2013). The Downside of Open-Access Publishing. *New England Journal of Medicine*, *368*(9), 791–793. https://doi.org/10.1056/NEJMp1214750

Johnson, R., Fosci, M., Chiarelli, A., Pinfield, S., & Jubb, M. (2017). *Towards A Competitive and Sustainable OA Market in Europe—A Study of The Open Access Market and Policy Environment*. https://doi.org/10.5281/zenodo.401029

Kennison, R., & Norberg, L. (2014). A Scalable and Sustainable Approach to Open Access Publishing and Archiving for Humanities and Social Sciences: A White Paper. *K N Cosultants*, 83. https://doi.org/10.31235/osf.io/24akw

Laakso, M., Welling, P., Bukvova, H., Nyman, L., Björk, B.-C., & Hedlund, T. (2011). The Development of Open Access Journal Publishing from 1993 to 2009. *PLOS ONE*, *6*(6), e20961. https://doi.org/10.1371/journal.pone.0020961

McCabe, M. J., & Snyder, C. M. (2016). *Open Access as a Crude Solution to a Hold-up Problem in the Two-Sided Market for Academic Journals* (SSRN Scholarly Paper No. ID 914525). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=914525

Moller, A. M. (2006). *Case for Open Access Publishing,* University of the Western Cape, South Africa.

Ponte, D., & Simon, J. (2011). Scholarly Communication 2.0: Exploring Researchers' Opinions on Web 2.0 for Scientific Knowledge Creation, Evaluation and Dissemination. *Serials Review*, *37*(3), 149–156. https://doi.org/10.1080/00987913.2011.10765376

Prasad, N. N. (2015). Awareness and attitude towards open access sources and services among student's research scholars and faculty of management colleges in Karnataka a study. *University*. Retrieved from http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/134581

Rajendra Babu, H. (2015). *Use of open access journals for scholarly communication in Life Sciences a study* (University of Mysore). Retrieved from http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/108434

Rittman, M. (2018). Sustainability in Publishing: An Open Access Publisher's View. *22nd International Conference on Electronic Publishing*. Presented at the 22nd International Conference on Electronic Publishing. https://doi.org/10.4000/proceedings.elpub.2018.9

Rob, J., Anthony, W., & Michael, M. (2018). *The STM Report An overview of scientific and scholarly publishing* (p. 212). Netherland: International Association of Scientific, Technical and Medical Publishers.

Sawant, S. (2013). Open access resources useful in LIS education. *Library Hi Tech News*, *30*(7), 16–20. https://doi.org/10.1108/LHTN-05-2013-0029

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